

Commonwealth of Virginia Electronic Lab Report Submission Guide HL7 version 2.5.1

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Introduction

This document presents VDH-specific amplifications and constraints to the HL7 Version 2.5.1 Implementation Guide: Electronic Laboratory Reporting to Public Health, Release 1 (US Realm). It is intended to assist submitters in successfully preparing messages to transmit reportable laboratory findings to VDH and in satisfying requirements to demonstrate Meaningful Use of electronic health records.

Useful Resources

HL7 Version 2.5.1 Implementation Guide: Electronic Laboratory Reporting to Public Health http://www.hl7.org/implement/standards/product brief.cfm?product id=98

Virginia Department of Health Meaningful Use website http://www.vdh.state.va.us/clinicians/meaningfuluse/

Virginia Department of Health Reportable Disease List http://www.vdh.virginia.gov/epidemiology/documents/pdf/reportable_disease_list.pdf

Electronic Lab Reporting in Virginia

Meaningful Use requires facilities to submit at least one test transmission, and to follow-up with actual transmissions if the test is successful. After messaging partners have had an opportunity to review the implementation guide, VDH business and technical contacts will work with them on any questions regarding message data elements or message construct. When the EHR system is able to produce a message based on the implementation guide, a sample message should be sent to VDH for construct validation. During construct validation, the VDH messaging team will work with the facility to establish a message feed into VDH's acceptance testing environment. The facility should continue to send a live feed while VDH conducts content validation. After the feed is established and validation is completed, VDH will notify the facility that the message has been tested and accepted and it will be moved into production. The facility is expected to maintain the transmissions to meet the meaningful use objective and to comply with state reporting requirements and usual practice.

Data Submission Parameters

- ELR data should be submitted to VDH in batch format rather than through individual messages.
- Batched messages should be sent as early as possible after midnight and contain all findings from the preceding day.
- Facilities are responsible for filtering out non-reportable findings.

Special Instructions

Laboratories should submit report when a reportable finding has been identified and not wait for testing on the specimen to be completed.

<u>Hepatitis Panels</u>: For any reportable hepatitis finding, all available results from the hepatitis panel should be submitted.

<u>Microbial Sensitivity</u>: Microbial sensitivity findings should be submitted for the following organisms, when available.

- Mycobacterium tuberculosis
- Neisseria gonorrhea
- Staphylococcus aureus with resistance to methicillin, resistance to vancomycin, or
 intermediate resistance to vancomycin: for MRSA, VRSA and VISA if a SNOMED code
 is used that indicates resistance (e.g., L-24852 for methicillin-resistant Staphylococcus
 aureus) it is not necessary to submit the sensitivity panel results, but if the code used
 does not communicate the resistance (e.g., L-24801 for Staphyloccus aureus) then the
 sensitivity results should be submitted.

Additional Information

With questions or for more information about electronic lab report submission to Virginia Department of Health, please contact:

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Message Segments, Structure, and Formatting

The section below is meant to aid in the construction of an ELR message. The table lists all the segments of an HL7 ELR message and indicates whether they are required or optional. The paragraphs following the table offer guidance on coding, local codes, and on the use of assigning authorities.

HL	7 ELR Messa	age Segments
Segment	ORU^R01	Description
Message Header (MSH)	R	The message header (MSH) segment contains information describing how to parse and process the message. This includes identification of message delimiters, sender, receiver, message type, timestamp, etc.
Software Segment (SFT)	R	Each HL7 aware application that touches the message on the way to the destination application must add a SFT segment for its application. For instance, PHIN MS is not HL7 aware and would not be expected to add an SFT. On the other hand, an integration engine is HL7 aware and would be expected to add an SFT. The first repeat (i.e., the Laboratory Result Sender actor) is required. Any other application that transforms the message must add an SFT segment for that application. Other applications that route or act as a conduit may add an SFT but are not required to do so.
Patient Results		
Patient Identification (PID)	R	The patient identification (PID) segment is used to provide basic demographics regarding the subject of the testing.
Patient Additional Demographics (PD1)	0	
Patient Notes and Comments (NTE)	RE	This notes and comments (NTE) segment should

		contain notes or comments pertaining to the patient identified in the PID segment. It should not contain order or result related comments.
NK1	0	The next of kin (NK1) segment can be used to document the patient's next of kin, employer, guardian, etc. Please use the NK1 segment for parent/guardian information, if it is available, when reporting testing results for children.
Patient Visit (PV1)	RE	HL7 requires that the patient visit (PV1) segment be present if the VISIT group (PV2) is present.
Patient Visit - Additional Information (PV2)	RE	
Order Observation		
Common order (ORC)	R	The common order (ORC) segment identifies basic information about the order for testing of the specimen. This segment includes identifiers for the order, who placed the order, when it was placed, what action to take regarding the order, etc. ELR Condition predicate: The first ORDER_OBSERVATION group must contain an ORC segment (containing ordering facility information) if no ordering provider information is present in OBR-16 or OBR-17.
Observation Request (OBR)	R	The observation request (OBR) segment is used to capture information about one test being performed on the specimen. Most importantly, the OBR identifies the type of testing to be performed on the specimen, and ties that information to the order for the testing.
Observation Request Notes and Comments (NTE)	0	
Timing / Quantity (TQ1)	0	Although Timing/Quantity may be necessary for orders, it's not necessary for result reporting, particularly ELR.
Timing / Quantity Order Sequence (TQ2)	0	
Contact Data (CTD)	0	
Observation/Result (OBX)	R	The observation/result (OBX) segment contains information regarding a single observation result. This includes identification of the specific type of observation, the result for the observation, when the observation was made, etc. For laboratory testing, the OBX normally reports the results of a test performed on a specimen,
Observation/Result Notes and Comments (NTE)	RE	The notes and comment (NTE) segment may carry comments related to the result being reported in the OBX segment.
Financial Transaction (FT1)	0	
Clinical Trial Identification (CTI)	0	
Specimen (SPM)	R	The specimen information (SPM) segment describes the characteristics of a single sample. The SPM segment carries information regarding the type of specimen, where and how it was collected, who collected it, and some basic characteristics of

the specimen.

R = Required to be sent

RE = Required to be sent but can be empty if information is not available

O = Optional

Identifiers and Assigning Authorities

Identifiers are requested in the HL7 message for many entities, including patients, specimens, providers and facilities. It is very important that the identifiers are provided for patients and specimens. It is also helpful when an ID is provided for an organization. Generally this will be the CLIA number for a laboratory, the NPI for a health care provider, or the OID assigned by ISO. Along with the identifier, information should be provided on the "assigning authority" to indicate what organization created the identifier. In some situations, for example when indicating the patient's physician or where the patient was seen, the name, addresses, and telephone number are more valuable for public health follow-up and should be prioritized.

Coding and Value Types

The use of LOINC is required and mandated by CMS, NIST, and VDH. SNOMED/SNOMED CT must be included if they are currently in use by the lab system. Local codes may be included in addition to standardized codes. If sending local codes, they are to be sent in the second triplet of the identifier field (CWE fields).

VDH allows for a variety of value types to be sent however, ED (Encapsulated Data) and RP (Reference Pointer) value types are not accepted. SN (Structured Numeric data type) instead of the NM (Numeric data type) should be used when reporting quantitative (numeric) results.

NTE - Notes and Comments Segments

Epidemiologically important information such as age and pregnancy status must be submitted when available and should be transmitted in the designated NTE fields. See information below regarding the formatting of this information in NTE fields.

PID NTE – Age									
Field Name	Seq	DT	Length	Notes/Value Set					
Set ID –NTE	1	SI	4	The first NTE segment shall be populated with '1'. Subsequent NTE segments under the same parent segment will increment the Set ID field.					
Source of Comment	2	ID	8	Expecting value "P" if Orderer/placer is source of comment or "L" if Ancillary/filler department is source of comment.					
Comment	3	FT	65536	^Years (Indicate the patient's age in years. Round years down to the nearest whole number. If a patient is under the age of 1, use 0)					
Comment Type	4	CE	60	Literal Value: "RE^Patient Age^HL70364"					

PID NTE - Illness or Injury Onset Date and Time Reporting									
Field Name	Seq	DT	Length	Notes/Value Set					
Set ID –NTE	1	SI	4	The first NTE segment shall be populated with '1'. Subsequent NTE segments under the same parent segment will increment the Set ID field.					
Source of Comment	2	ID	8	Expecting value "P" if Orderer/placer is source of comment or "L" if Ancillary/filler department is source of comment.					
Comment	3	FT	65536	^Date and time (YYYYMMDD[HH[MM[SS[.S[S[S[S]]]]]]]+/-ZZZZ])					
Comment Type	4	CE	60	Literal Value: "RE^Illness or injury onset date and time^HL70364"					

PID NTE – Pregnancy Status Reporting									
Field Name	Seq	DT	Length	Notes/Value Set					
Set ID –NTE	1	SI	4	The first NTE segment shall be populated with '1'. Subsequent NTE segments under the same parent segment will increment the Set ID field.					
Source of Comment	2	ID	8	Expecting value "P" if Orderer/placer is source of comment or "L" if Ancillary/filler department is source of comment.					
Comment	3	FT	65536	^Status (SNOMED codes: 261665006^Unknown, 7738600^Patient currently pregnant, and 60001007^Not pregnant)					
Comment Type	4	CE	60	Literal Value: "RE^Pregnancy status^HL70364"					

	ОВХ	NTE –	Treatmen	t Information Reporting
Field Name	Seq	DT	Length	Notes/Value Set
Set ID –NTE	1	SI	4	The first NTE segment shall be populated with '1'. Subsequent NTE segments under the same parent segment will increment the Set ID field.
Source of Comment	2	ID	8	Expecting value "P" if Orderer/placer is source of comment or "L" if Ancillary/filler department is source of comment.
Comment	3	FT	65536	^Medication (Name of drug; If multiple drugs are prescribed please use a separate NTE segment for each drug)^Dose (mg, ml, etc.)^Frequency (How often the drug is taken)^Length of time (For how many days the drug is to be taken)^Route (Is the medication taken orally, injected, etc.)
Comment Type	4	CE	60	Literal Value: "RE^Treatment for condition^HL70364"

Data Element Specifications

The tables below outline the data elements by message segment that are requested for electronic lab report submission.

	MESSAGE HEADER SEGMENT (MSH)									
Field Name	Seq	DT	Length	Use	Notes/Value Set					
Field Separator	1	ST	1	R	Default value " "					
Encoding Characters	2	ST	4	R	Default values "^~ &"					
Sending Application	3	HD		RE	Field that may be used to identify the sending application uniquely for messaging purposes.					
Namespace ID	3.1	IS	20	RE	Name of the sending application. Use full name of sending application, no codes or abbreviations will be accepted unless character length is exceeded.					
Sending Facility	4	HD	27	R	Field that uniquely identifies the facility associated with the application that sends the message. If Acknowledgements are in use, this facility will receive any related Acknowledgement message.					
Namespace ID	4.1	IS	20	R	Name of the sending facility. Use full name of sending facility, no codes or abbreviations will be accepted unless character length is exceeded. If message is sent by a vendor on behalf of a health care facility, the name of vendor should be used.					
Universal ID	4.2	ST	199	R	CLIA (Clinical Laboratory Improvement Amendments) is expected. If the sending facility does not have a CLIA number, please discuss the use of an alternate ID with VDH.					
Universal ID Type	4.3	ID	6	R	Expecting value "CLIA" if used a CLIA number or "ID" if used an alternate identifier.					
Receiving Application	5	HD	227	RE	Used to identify the receiving application. Literal value: "VDHELR"					
Receiving Facility	6	HD	227	R	Used to uniquely identify the facility that receives the message.					
Namespace ID	6.1	IS	20	R	Literal value: "VDH"					
Universal ID	6.2	ST	199	R	Literal value: "2.16.840.1.114222.4.1.184"					
Universal ID Type	6.3	ID	6	R	Literal value: "ISO"					
Date/Time of Message	7	TS	26	R	Date/Time the sending system created the message. Format: YYYYMMDD[HHMM[SS]]					

Message Type	9	MSG	15	R	Defines the type of HL7 message being sent. Literal Value: "ORU^R01^ORU_R01"
Message Control ID	10	ST	199	R	This field is a number or other identifier that uniquely identifies the message. The recommended format for this field is a timestamp and a sequence number.
Processing ID	11	PT	3	R	Indicates how to process the message. Literal values: "P" for Production or "D" for Debugging
Version ID	12	VID	5	R	Literal value: "2.5.1" (Note that Meaningful Use requires use of a 2.5.1 message.)
Accept Acknowledgement Type	15			RE	Field used to denote if/when to send acknowledgement. Should correlate with MSH-21.1. Valid codes are (Table 0155): Value Description AL Always NE Never ER Error/reject conditions only SU Successful completion only
Application Acknowledgement Type	16			RE	Field used to denote if/when to send acknowledgement. Should correlate with MSH-21.1. Valid codes are (Table 0155): Value Description AL Always NE Never ER Error/reject conditions only SU Successful completion only
Message Profile Identifier	21	EI	427	R	Field used to reference or assert adherence to a message profile. Message profiles contain detailed explanations of grammar, syntax, and usage for a particular message or set of messages.
Entity Identifier	21.1	ST	199	R	Default value "PHLabReport-Batch" Value Description USELR1.0 Sample Messages Only PHLabReport-Ack Acknowledgement requested No acknowledgement PHLabReport-NoAck requested PHLabReport-Batch Batch processing used
Namespace ID	21.2	IS	20	RE	Literal value "^"

Universal ID	21.3	ST	199	R	Literal value: "2.16.840.1.114222.4.10.3"
Universal ID Type	21.4	ID	6	R	Literal value: "ISO"

SOFTWARE SEGMENT (SFT)									
Field Name	Seq	DT	Length	Use	Notes/Value Set				
Software Vendor Organization	1	XON	50	R	Organization identification information for the software vendor that created this message.				
Organization Name	1.1	ST	4	CE	The name of the organization.				
Organization Name Type Code	1.2	IS	20	RE	Use a valid type codes. Valid name type codes are (excerpt of Table 0204): Value Description A Alias name D Display name L Legal name				
Assigning Authority	1.6	HD	227	CE	Component used to identify the system, application, or organization that assigned the ID.				
Assigning Authority Name	1.6.1	IS	20	RE	The name of the Assigning Authority that assigned the code is 1.10.				
Assigning Authority ID	1.6.2	ST	199	R	The CLIA number or OID of the Assigning Authority.				
Assigning Authority ID Type	1.6.3	ID	6	R	Expecting value "CLIA" if used a CLIA number or "ISO" if used an OID.				
Identifier Type Code	1.7	ID	5	CE	Always send 'XX' when SFT-1.10 is populated.				
Organization Identifier	1.10	ST	20	RE	A code for the organization.				
Software Certified Version or Release Number	2	ST	15	R	Latest software version number of the sending system.				
Software Product Name	3	ST	20	R	The name of the software product that submitted the transaction.				
Software Binary ID	4	ST	20	R	ID issued by a vendor for each unique software version instance.				
Software Install Date	6	TS	26	RE	Date/Time the sending submitting software was installed at the sending site Format: YYYYMMDD[HHMM[SS]]				

	PATIENT IDENTIFICATION SEGMENT (PID)									
Field Name	Seq	DT	Length	Use	Notes/Value Set					
Set ID – PID	1	SI	4	R	Literal Value: "1"					
Patient Identifier List	3	СХ	250	R	PID-3 is a repeating field that can accommodate multiple patient identifiers. Generally this will be a unique patient identifier assigned by the facility submitting the report to public health. Patient identifiers should be strong enough to remain a unique identifier across different data provider models, such as a networked data provider or an HIE.					
Patient ID	3.1	ST	15	R	Use a laboratory assigned patient identifier, patient medical record number, social security number or equivalent patient identifier. The identifier provided should allow the facility to retrieve information on the patient if additional information is requested by public health.					
Assigning Authority	3.4	HD	227	R	Component used to identify the system, application, or organization that assigned the Patient ID.					
Assigning Authority Name	3.4.1	IS	20	RE	The name of the Assigning Authority.					
Assigning Authority ID	3.4.2	ST	199	R	The CLIA number or OID of the Assigning Authority.					
Assigning Authority ID Type	3.4.3	ID	6	R	Expecting value "CLIA" if used a CLIA number or "ISO" if used an OID.					
Identifier Type Code	3.5	ID	5	R	Use the Identifier Type Code that corresponds to the type of Patient ID used in PID-3.1. Valid type codes are (excerpt of Table 0203): Value Description AN Account Number BR Birth Registry Number DL Driver's License Number MR Medical Record Number PI Patient Internal Identifier PN Person Number PT Patient External Identifier SS Social Security Number					
Assigning	3.6	HD	227	R	Component used to identify the place/location where the Patient ID was assigned for use.					

Facility					
Assigning Facility Name	3.6.1	IS	20	RE	The name of the Assigning Facility.
Assigning Facility ID	3.6.2	ST	199	R	The CLIA number or OID of the Assigning Facility.
Assigning Facility ID Type	3.6.3	ID	6	R	Expecting value "CLIA" if used a CLIA number or "ISO" if used an OID.
Patient Name	5	XPN	294	R	Patient name or aliases.
Last Name	5.1	FN	Not Limited	R	The patient's family/surname name.
First Name	5.2	ST	Not Limited	R	The patient's given name.
Middle Name/Initials	5.3	ST	Not Limited	RE	The patient's middle initial or middle name.
Suffix	5.4	ST	Not Limited	RE	The patient's suffix (e.g. JR or III).
Prefix	5.5	ST	Not Limited	RE	The patient's prefix (e.g. DR).
Name Type Code	5.7	ID	Not Limited	RE	Defines the type of name sent in PID-5. Literal Value: "L" (Legal Name) is recommended. Valid name type codes are (excerpt of Table 0200): Value Description C Adopted Name A Alias Name S Coded Pseudo-Name to ensure anonymity D Display Name T Indigenous/Tribal/Community Name L Legal Name I Licensing Name M Maiden Name B Name at Birth P Name of Partner/Spouse N Nickname R Registered Name U Unspecified
Mother's maiden name	6	XPN	250	RE	The patient's mother's maiden name.
Last Name	6.1	FN	Not	RE	The patient's mother's family/surname name.

			Limited		
First Name	6.2	ST	Not Limited	RE	The patient's mother's given name.
Middle Name/Initials	6.3	ST	Not Limited	RE	The patient's mother's middle initial or middle name.
Suffix	6.4	ST	Not Limited	RE	The patient's mother's suffix (e.g. JR or III).
Prefix	6.5	ST	Not Limited	RE	The patient's mother's prefix (e.g. DR).
Name Type Code	6.7	ID	Not Limited	RE	Defines the type of name sent in PID-6. Literal Value: "M" (Maiden Name) is required. Valid name type codes are (excerpt of Table 0200): Value Description C Adopted Name A Alias Name S Coded Pseudo-Name to ensure anonymity D Display Name T Indigenous/Tribal/Community Name L Legal Name I Licensing Name M Maiden Name B Name at Birth P Name of Partner/Spouse N Nickname R Registered Name U Unspecified
Date/Time of Birth	7	TS	26	RE	Format: YYYYMMDD
Administrative Sex	8	IS	1	RE	The patient's gender. Valid administrative sex codes are (excerpt of Table 0001): Value Description F Female M Male H Hermaphrodite, Undetermined T Transsexual O Other U Unknown
Race	10	CE	478	RE	Race should be submitted if known. Patient can have more than one race defined.
Identifier	10.1	ST	20	RE	Standardized code for patient race category.

					Valid standardized race codes are (excerpt of Table 0005): Value Description I American Indian or Alaska Native A Asian P Native Hawaiian or Other Pacific Islander B Black or African-American W White O Other U Unknown
Text	10.2	ST	199	CE	Standardized text description that corresponds with code in PID-10.1.
Name of Coding System	10.3	ID	20	CE	Literal value: "CDCREC"
Patient Address	11	XAD	513	RE	Expecting the primary residence of the patient and not the billing address.
Patient Street Address	11.1	ST	100	RE	The patient's street address. Note that apartment, suite, or unit numbers belong in 11.2.
Patient Address Line 2	11.2	ST	100	RE	The patient's apartment/unit number.
City	11.3	ST	50	RE	The city in which the patient resides.
State	11.4	ST	50	RE	The state in which the patient resides. Use a valid 2 character state code.
ZIP or Postal Code	11.5	ST	12	RE	The patient's zip code. Use a valid 5-digit zip code.
Address Type	11.7	ID	3	RE	Defines the type of address sent. Type code 'H' (Home) is recommended. If patient address is sent, this field is required. Valid codes are (excerpt of Table 0190): Value Description B Firm/Business C Current or Temporary H Home L Legal Address M Mailing O Office P Permanent RH Registry home
County/Parish Code	11.9	IS	20	RE	Submit county where patient resides if information is available. If patient lives in an independent city in Virginia, submit city name in this field as well as in PID-11.3.
Phone Number - Home	13	XTN	40	RE	The patient's home telephone number.

Telecom Use Code	13.2	ID	Not Limited	RE	Expected value: "PRN" (Primary Residence Number) Valid codes are (excerpt of Table 0201): Value Description ASN Answering Service Number BPN Beeper Number EMR Emergency Number NET Network (email) Address
					ORN Other Residence Number PRN Primary Residence Number VHN Vacation Home Number WPN Work Number
Telecom Equipment Type	13.3	ID	Not Limited	RE	Expected Value: "PH" (Telephone) or "CP" (Cellular Phone) Valid codes are (excerpt of Table 0202): Value Description BP Beeper CP Cellular Phone FX Fax Internet Internet Address: Use Only If Telecommunication Use Code Is NET MD Modem PH Telephone TDD Telecommunications Device for the Deaf TTY Teletypewriter X.400 X.400 email address: Use Only If Telecommunication Use Code Is NET
Area Code	13.6	NM	3	CE	The area code of the patient's home telephone number.
Phone Number	13.7	NM	7	CE	The patient's local home telephone number.
Extension	13.8	NM	Not Limited	CE	The patient's home extension
Phone Number – Business	14	XTN	40	RE	The patient's work/school telephone number.
Telecom Use Code	14.2	ID	Not Limited	RE	Expected Value: "WPN" (Work Number) Valid codes are (excerpt of Table 0201): Value Description ASN Answering Service Number BPN Beeper Number EMR Emergency Number NET Network (email) Address ORN Other Residence Number

					PRN Primary Residence Number
					VHN Vacation Home Number
		1			WPN Work Number
Telecom Equipment Type	14.3	ID	Not Limited	RE	Literal Value: "PH" (Telephone) Valid codes are (excerpt of Table 0202): Value Description BP Beeper CP Cellular Phone FX Fax Internet Internet Address: Use Only If Telecommunication Use Code Is NET MD Modem PH Telephone TDD Telecommunications Device for the Deaf TTY Teletypewriter X.400 X.400 email address: Use Only If Telecommunication Use Code Is NET
Area Code	14.6	NM	3	CE	The area code of the patient's home telephone number.
Phone Number	14.7	NM	7	CE	The patient's local home telephone number.
Extension	14.8	NM	Not Limited	CE	The patient's home extension
Ethnic Group	22	CE	478	RE	Ethnicity should be submitted if known.
Identifier	22.1	ST	20	RE	Standardized code for patient ethnicity category. Valid standardized ethnicity codes are (excerpt of Table 0189): Value Description H Hispanic or Latino N Not Hispanic or Latino U Unknown
Text	22.2	ST	199	CE	Standardized text description that corresponds with code in PID-22.1.
Name of Coding System	22.3	ID	20	CE	Literal value: "CDCREC"
Patient Death Date and Time	29	TS	26	RE	The date and time of the patient's death. Format: YYYYMMDD[HHMM[SS]]
Patient Death Indicator	30	ID	1	RE	Literal Value: "Y" (if PID-29 is populated).

	COMMON ORDER SEGMENT (ORC)											
Field Name	Seq	DT	Length	Use	Notes/Value Set							
Order Control	1	ID	2	R	Determines the function of the order segment. Literal Value: "'RE"							
Placer Order Number	2	El	22	R	The order number of the person or entity who placed the order. This field should contain the same value as OBR-2.							
Order Number	2.1	ST	199	R	The placer order number is expected to be unique within the placer's organization. If order numbers are ever reused, a time- or date-stamp may need to be added to the end of the number to guarantee uniqueness.							
Assigning Authority Name	2.2	IS	20	RE	The name of the Assigning Authority.							
Assigning Authority ID	2.3	ST	199	R	The CLIA number or OID of the Assigning Authority.							
Assigning Authority ID Type	2.4	ID	6	R	Expecting value "CLIA" if used a CLIA number or "ISO" if used an OID.							
Filler Order Number	3	EI	22	R	The order number of the person or entity that carries out the order. This field should contain the same value as OBR-3.							
Order Number	3.1	ST	199	R	The filler order number is expected to be unique within the filler's organization. If order numbers are ever reused, a time- or date-stamp may need to be added to the end of the number to guarantee uniqueness.							
Assigning Authority Name	3.2	IS	20	RE	The name of the Assigning Authority.							
Assigning Authority ID	3.3	ST	199	R	The CLIA number or OID of the Assigning Authority.							
Assigning Authority ID Type	3.4	ID	6	R	Expecting value "CLIA" if used a CLIA number or "ISO" if used an OID.							
Placer Group Number	4	CE	22	RE	Used to identify a group of orders. In a laboratory setting, this is commonly referred to as a "requisition number".							
Order Number	4.1	ST	199	R	The placer group order number is expected to be unique within the filler's organization. If order numbers are ever reused, a time- or date-stamp may need to be added to the end of the number to guarantee uniqueness.							

Assigning		1.0		T	
Authority Name	4.2	IS	20	RE	The name of the Assigning Authority.
Assigning Authority ID	4.3	ST	199	R	The CLIA number or OID of the Assigning Authority.
Assigning Authority ID Type	4.4	ID	6	R	Expecting value "CLIA" if used a CLIA number or "ISO" if used an OID.
Ordering Provider	12	XCN	120	CE	This field identifies the provider who ordered the test. If OBR-16 is populated, this field will contain the same value.
ID number	12.1	ST	Not Limited	RE	The identifier number for this provider. The National Provider Identifier (NPI) is expected.
Last Name	12.2	FN	Not Limited	RE	The ordering provider's family/surname.
First Name	12.3	ST	Not Limited	RE	The ordering provider's given name.
Middle Name/Initials	12.4	ST	Not Limited	RE	The ordering provider's middle name or initials thereof.
Suffix	12.5	ST	Not Limited	RE	The ordering provider's suffix.
Prefix	12.6	ST	Not Limited	RE	The ordering provider's prefix (e.g. DR).
Assigning Authority	12.9	HD	227	CE	The organization which assigned the ID number in ORC-12.1.
Assigning Authority Name	12.9.1	IS	20	RE	Literal Value: "CMS" (if NPI is used in ORC-12.1).
Assigning Authority ID	12.9.2	ST	199	R	Literal Value: "2.16.840.1.113883.19.4.6" (if NPI is used in ORC-12.1).
Assigning Authority ID Type	12.9.3	ID	6	R	Literal Value: "ISO" (if NPI is used in ORC-12.1).
Name Type Code	12.10	ID	Not Limited	RE	Defines the type of name sent in ORC-12. Literal Value: "L" (Legal Name) is recommended. Valid name type codes are (excerpt of Table 0200): Value Description C Adopted Name A Alias Name S Coded Pseudo-Name to ensure

					anonymity D Display Name T Indigenous/Tribal/Community Name L Legal Name I Licensing Name M Maiden Name B Name at Birth P Name of Partner/Spouse N Nickname R Registered Name U Unspecified
Identifier Type Code	12.13	IS	Not Limited	CE	Type code identifying the ID number in 12.1. Literal Value: "NPI" (if NPI is used in ORC-12.1).
Assigning Facility	12.14	HD	227	RE	Component used to identify the place/location that the ID number was assigned for use. (Note that If an NPI is being used, there is no assigning facility and this field will be empty.)
Assigning Facility Name	12.14.1	IS	20	RE	The name of the Assigning Facility.
Assigning Facility ID	12.14.2	ST	199	R	The CLIA number or OID of the Assigning Facility.
Assigning Facility ID Type	12.14.3	ID	6	R	Expecting value "CLIA" if used a CLIA number or "ISO" if used an OID.
Ordering Facility Name	21	XON	60	R	The name of the facility placing the order.
Organization Name	21.1		Not Limited	CE	The name of the facility placing the order.
Organization Name Type	21.2		Not Limited	RE	Use a valid type codes. Valid name type codes are (excerpt of Table 0204): Value Description A Alias name D Display name L Legal name
Assigning Authority	21.6	HD	227	CE	Used to identify the system, application, or organization that assigned the ID in ORC-21.10
Assigning Authority Name	21.6.1	IS	20	RE	The name of the Assigning Authority.
Assigning Authority ID	21.6.2	ST	199	R	The CLIA number or OID of the Assigning Authority.

Assigning					
Authority ID Type	21.6.3	ID	6	R	Expecting value "CLIA" if used a CLIA number or "ISO" if used an OID.
Identifier Type Code	21.7		Not Limited	CE	Always send 'XX' when ORC-21.10 is populated.
Organization Identifier	21.10		Not Limited	RE	The ordering facility identifier.
Ordering Facility Address	22	XAD	106	R	The address of the facility where the order was placed.
Street Address	22.1	ST	100	RE	The ordering facility's street/mailing address. Send the street address only without apartment, suite, or unit numbers.
Address Line 2	22.2	ST	100	RE	The ordering facility's suite/unit number.
City	22.3	ST	50	RE	The city in which the ordering facility is located.
State	22.4	ST	50	RE	The state in which the ordering facility is located. Use a valid 2 character state code.
ZIP or Postal Code	22.5	ST	12	RE	The ordering facility's zip code. Use a valid 5-digit zip code.
Address Type	22.7	ID	3	RE	Defines the type of address sent in ORC-22. Type code 'B' (Business) is recommended. If Ordering Facility Address is sent, this field is required.
County/Parish Code	22.9	IS	20	RE	The ordering facility's county. If the ordering facility's is in an independent city in Virginia, submit city name in this field as well as in ORC-22.3.
Ordering Facility Phone Number	23	XTN	48	R	The ordering facility's phone number.
Telecom Use Code	23.2	ID	Not Limited	RE	Expected Value: "WPN" (Work Number) Valid codes are (excerpt of Table 0201): Value Description ASN Answering Service Number BPN Beeper Number EMR Emergency Number NET Network (email) Address ORN Other Residence Number PRN Primary Residence Number VHN Vacation Home Number WPN Work Number
Telecom Equipment Type	23.3	ID	Not Limited	RE	Expected Value: "PH" (Telephone) Valid codes are (excerpt of Table 0202): Value Description BP Beeper

			1	1	OP OHIVE Phone
					CP Cellular Phone
					FX Fax
					Internet Address: Use Only If
					Telecommunication Use Code Is NET
					MD Modem
					PH Telephone
					TDD Telecommunications Device for the Deaf
					TTY Teletypewriter
					X.400 X.400 email address: Use Only If
					Telecommunication Use Code Is NET
Area Code	23.6	NM	3	CE	The area code of the ordering facility's telephone number.
Phone Number	23.7	NM	7	CE	The ordering facility's phone number.
Extension	23.8	NM	Not Limited	CE	The ordering facility's extension number.
Ordering Provider Address	24	XAD	106	RE	The address of the ordering provider.
Street Address	24.1	ST	100	RE	The ordering provider 's street address. Send the street address only without apartment, suite, or unit numbers.
Address Line 2	24.2	ST	100	RE	The ordering provider 's suite/unit number.
City	24.3	ST	50	RE	The ordering provider 's city.
State	24.4	ST	50	RE	The ordering provider 's state. Use a valid 2 character state code.
ZIP or Postal Code	24.5	ST	12	RE	The ordering provider 's zip code. Use a valid 5-digit zip code.
Address Type	24.7	ID	3	RE	Defines the type of address sent in ORC-24. Type code 'B' (Business) is recommended. If Ordering Facility Address is sent, this field is required.
County/Parish Code	24.9	IS	20	RE	The ordering provider's county. If the ordering provider's is in an independent city in Virginia, submit city name in this field as well as in ORC-24.3.

	OBSERVATION REQUEST SEGMENT (OBR)										
Field Name	Seq	DT	Length	Use	Notes/Value Set						
Set ID - OBR	1	SI	1	R	Literal Value: "1"						
Placer Order Number	2	EI	22	RE	The order number of the person or entity who placed the order. The placer order number is expected to be unique within the placer's organization. Order numbers which are reused should start with a timestamp to guarantee uniqueness.						

Order Number	2.1	ST	199	R	The placer order number is expected to be unique within the placer's organization. If order numbers are ever reused, a time- or date-stamp may need to be added to the end of the number to guarantee uniqueness.
Assigning Authority Name	2.2	IS	20	RE	The name of the Assigning Authority.
Assigning Authority ID	2.3	ST	199	R	The CLIA number or OID of the Assigning Authority.
Assigning Authority ID Type	2.4	ID	6	R	Expecting value "CLIA" if used a CLIA number or "ISO" if used an OID.
Filler Order Number	3	EI	22	R	The order number of the person or entity that carries out the order. The filler order number is expected to be unique within the filler's organization. If order numbers are ever reused, a time- or date-stamp may need to be added to the end of the number to guarantee uniqueness.
Order Number	3.1	ST	199	R	The filler order number is expected to be unique within the filler's organization. If order numbers are ever reused, a time- or date-stamp may need to be added to the end of the number to guarantee uniqueness.
Assigning Authority Name	3.2	IS	20	RE	The name of the Assigning Authority.
Assigning Authority ID	3.3	ST	199	R	The CLIA number or OID of the Assigning Authority.
Assigning Authority ID Type	3.4	ID	6	R	Expecting value "CLIA" if used a CLIA number or "ISO" if used an OID.
Universal Service	4	CWE	22	R	This field is the identifier code for the requested observation/test. LOINC must be sent in OBR-4.1 – OBR-4.3. Local codes may be sent in OBR-4.4 – OBR-4.6.
Code (LOINC)	4.1	ST	20	R	A LOINC code for the requested observation/test.
Description (LOINC)	4.2	ST	199	R	A description for the LOINC code sent in OBR-4.1.
ID Type (LOINC)	4.3	ST	12	R	Literal Value: "LN"
Code (Local)	4.4	ST	20	RE	Alternate code the laboratory uses that uniquely identifies the requested observation/test.
Description	4.5	ST	199	CE	A description for the local code sent in OBR-4.4.

(Local)					
ID Type (Local)	4.6	ST	12	CE	Literal Value: "L" (if OBR4.4 and OBR-4.5 are populated).
Coding System Version ID	4.7	ST	10	RE	Version of the LOINC coding system used in OBR-4.1.
Alternate Coding System Version ID	4.8	ST	10	RE	Version of the Laboratory's internal coding system used in OBR-4.4.
Observation Date/Time	7	TS		R	For specimen-based observations, the date/time the specimen was collected. If the SPM is sent, this field must contain the same value as the first component of SPM-17 Specimen Collection Date/Time.
	4.0	24011			Format: YYYYMMDD[HHMM[SS]]
Ordering Provider	16	XCN	NI-1	RE	This field identifies the provider who ordered the test.
ID number	16.1	ST	Not Limited	RE	The identifier number for this provider. The National Provider Identifier (NPI) is expected.
Last Name	16.2	FN	Not Limited	RE	The ordering provider's family/surname.
First Name	16.3	ST	Not Limited	RE	The ordering provider's given name.
Middle Name/Initials	16.4	ST	Not Limited	RE	The ordering provider's middle name or initials.
Suffix	16.5	ST	Not Limited	RE	The ordering provider's suffix.
Prefix	16.6	ST	Not Limited	RE	The ordering provider's prefix (e.g. DR).
Assigning Authority	16.9	HD	227	CE	The organization which assigned the ID number in ORC-12.1.
Assigning Authority Name	16.9.1	IS	20	RE	Literal Value: "CMS" (if NPI is used in ORC-12.1).
Assigning Authority ID	16.9.2	ST	199	R	Literal Value: "2.16.840.1.113883.19.4.6" (if NPI is used in ORC-12.1).
Assigning Authority ID Type	16.9.3	ID	6	R	Literal Value: "ISO" (if NPI is used in ORC-12.1).
Name Type	16.10	ID	Not	RE	Defines the type of name sent in ORC-12. Literal Value: "L" (Legal Name) is

Code			Limited		recommended.
Code			Limited		Valid name type codes are (excerpt of Table 0200): Value Description C Adopted Name A Alias Name S Coded Pseudo-Name to ensure anonymity D Display Name T Indigenous/Tribal/Community Name L Legal Name I Licensing Name M Maiden Name B Name at Birth P Name of Partner/Spouse N Nickname
					R Registered Name U Unspecified
Identifier Type Code	16.13	IS	Not Limited	CE	Type code identifying the ID number in 12.1. Literal Value: "NPI" (if NPI is used in ORC-12.1).
Assigning Facility	16.14	HD	227	RE	Component used to identify the place/location that the ID number was assigned for use. (Note that If an NPI is being used, there is no assigning facility and this field will be empty.)
Assigning Facility Name	16.14.1	IS	20	RE	The name of the Assigning Facility.
Assigning Facility ID	16.14.2	ST	199	R	The CLIA number or OID of the Assigning Facility.
Assigning Facility ID Type	16.14.3	ID	6	R	Expecting value "CLIA" if used a CLIA number or "ISO" if used an OID.
Order Callback Phone Number	17	XTN		RE	The ordering facility's phone number.
Telecom Use Code	17.2	ID	Not Limited	RE	Expected Value: "WPN" (Work Number) Valid codes are (excerpt of Table 0201): Value Description ASN Answering Service Number BPN Beeper Number EMR Emergency Number NET Network (email) Address ORN Other Residence Number PRN Primary Residence Number

		1			VHN Vacation Home Number
					VHN Vacation Home Number WPN Work Number
			Not		
Telecom Equipment Type	17.3	ID	Not Limited	RE	Expected Value: "PH" (Telephone) Valid codes are (excerpt of Table 0202): Value Description BP Beeper CP Cellular Phone FX Fax Internet Internet Address: Use Only If Telecommunication Use Code Is NET MD Modem PH Telephone TDD Telecommunications Device for the Deaf TTY Teletypewriter X.400 X.400 email address: Use Only If
Area Code	17.6	NM	3	CE	
	17.0	INIVI	3	CE	The area code of the ordering facility's telephone number.
Phone Number	17.7	NM	7	CE	The ordering facility's phone number.
Extension	17.8	NM	Not Limited	CE	The ordering facility's extension number.
Results Rpt/Status Change - Date/Time	22	TS	26	R	This field specifies the date/time when the results were reported or status changed. Format: YYYYMMDD[HHMM[SS]]
Result Status	25	ID	1	R	This field contains the status of results for this order. Valid status codes are (excerpt of Table 0123): Value Description A Some, but not all, results available C Correction to results F Final results; results stored and verified. Can only be changed with a corrected result. I No results available; specimen received, procedure incomplete O Order received; specimen not yet received P Preliminary: A verified early result is available, final results not yet obtained R Results stored; not yet verified S No results available; procedure scheduled, but not done X No results available; Order canceled.

Parent Result	26	PRL	400	CE	This field allows the results associated with this order to be linked to a parent result.
OBX-3 Observation Identifier	26.1	CE	483	R	Populate based on values from parent OBX-3.
OBX-4 Sub-ID	26.2	ST	20	RE	Populate based on values from parent OBX-4.
OBX-5 Observation Value	26.3	TX	250	RE	Populate based on values from parent OBX-5.2 or OBX-5.5 if OBX-5.2 is null.
Parent	29	EIP	200	CE	Used to link this OBR with a parent OBR.

	OBSERVATION/RESULT SEGMENT (OBX)									
Field Name	Seq	DT	Length	Use	Notes/Value Set					
Set ID - OBX	1	SI	4	R	The first OBX segment under an OBR segment shall be populated with '1'. Subsequent OBX segments under the same parent OBR segment will increment the Set ID field.					
Value Type	2	ID	3	RE	This field identifies the data type used for OBX-5. Valid value types are (excerpt of Table 0125): Value Description CE Coded Entry CWE Coded with Exceptions NM Numeric SN Structured Numeric ST String Data TX Text Data (Display)					
Observation Identifier	3	CWE		R	This field contains a unique identifier for the observation.					
Code (LOINC)	3.1	ST	20	R	A LOINC code for the requested observation/test.					
Description (LOINC)	3.2	ST	199	RE	A description for the LOINC code sent in OBR-3.1.					
ID Type (LOINC)	3.3	ST	12	R	Literal Value: "LN"					
Code (Local)	3.4	ST	20	RE	Alternate code the laboratory uses that uniquely identifies the requested observation/test.					
Description	3.5	ST	199	CE	A description for the local code sent in OBR-3.4.					

(Local)					
ID Type (Local)	3.6	ST	12	CE	Literal Value: "L" (if OBR3.4 and OBR-3.5 are populated).
Coding System Version ID	3.7	ST	10	RE	Version of the LOINC coding system used in OBR-3.1.
Alternate Coding System Version ID	3.8	ST	10	RE	Version of the Laboratory's internal coding system used in OBR-3.4.
Observation Sub-ID	4	ST	20	CE	Used to uniquely identify a result code. Only needs to be sent if there are repeating OBX segments with equal OBX-3 fields.
					This field contains the results of the test/observation listed in OBX-3. The structure of OBX-5 is defined by OBX-2.
					Whenever possible the SNOMED code should be included as a CWE data type. If a SNOMED code does not exist 2 options are possible. Only use a TX/ST or SN if both standard and local codes do not exist that describe the result.
Observation Value	5 Varies	Varies	99999	RE	Option 1: Use the parent SNOMED code, i.e. move up the vocabulary hierarchy tree to the next level to code (e.g. Serovar to Subspecies), and populate OBX-5.9 with the original text for the result. The local code and original text should represent the current level of knowledge.
					Option 2: Use only the local code. You should always populate OBX-5.9 with the original text for the result. This method is an exception to the convention of populating the first triplet with a standard code.
		TX/ST			TX/ST data types – used to carry a text/short text result value. Numeric results with or without units of measure should be reported as NM or SN (with units of measure in OBX-6).
		SN			SN data type – used to carry structured numeric result values including: Intervals – ^0^-^1 (between 0 and 1) Ratios – ^1^/^2 or ^1^:^2 (ratio of 1 to 2) Inequalities – <^10 (less than 10) Categorical – ^2^+
Comparator	5.1			RE	Must be one of ">" or "<" or ">=" or "<=" or "=" or "<>".
Num1	5.2			RE	Numeric value.
Separator/Suffix	5.3			RE	Must be one of "-" or "+" or "/" or "." or ":".
Num2	5.4			RE	Numeric value.

			1	1	T.
		CWE			 CWE data type – used to carry coded results including: Organisms – 17872004^Neisseria meningitidis^SCT Modifiers – 260373001^Detected^SCT
Result Code (SNOMED)	5.1			RE	A SNOMED CT code.
Result Text (SNOMED)	5.2			CE	A description for the SNOMED CT code sent in OBX-5.1
ID Type (SNOMED)	5.3			CE	Identifies the type of code sent in OBX-5.1 Literal Value: "SCT" (when OBX-5.1 and OBX-5.2 are populated).
Alt. Result Code (Local)	5.4			RE	An alternate code the laboratory uses that uniquely identifies the result.
Alt. Description (Local)	5.5			CE	A description for the local code sent in OBX-5.5
Alt. ID Type (Local)	5.6			CE	Identifies the type of code sent in OBX-5.4. Literal Value: "L" (when OBX-5.4 and OBX-5.5 are populated).
Coding System Version ID	5.7			RE	Version of the SNOMED CT coding system used in OBX-5.1.
Alternate Coding System Version ID	5.8			RE	Version of the Laboratory's internal coding system used in OBX-5.4
Original Text	5.9			RE	A text description of the result.
Units	6	CE	250	CE	This field contains the units of measure for the observation value in OBX-5. If OBX-2 = "NM" or OBX-2 = "SN" then this field is required.
Identifier	6.1	ST	20	RE	A Unified Code for Units of Measure (UCUM)
Text	6.2	ST	199	CE	A description for the UCUM code sent in OBX-6.1.
Name of Coding System	6.3	ID	20	CE	Identifies the type of code sent in OBX-6.1. Literal Value: "UCUM" (when OBX-6.1 and OBX-6.2 are populated).
Alternate Identifier	6.4	ST	20	RE	An alternate code the laboratory uses that uniquely identifies the unit of measure.
Alternate Text	6.5	ST	199	CE	A description for the local code sent in OBX-6.4.
Name of Alternate Coding System	6.6	ID	20	CE	Identifies the type of code sent in OBX-6.4. Literal Value: "L" (when OBX-6.4 and OBX-6.5 are populated).
Coding System Version ID	6.7			RE	Version of the UCUM coding system used in OBX-6.7.
Alternate Coding System Version	6.8			RE	Version of the Laboratory's internal coding system used in OBX-6.4.

ID					
Reference Ranges	7	ST	60	RE	When the observation quantifies the amount of a toxic substance, then the upper limit of the range identifies the toxic limit. If the observation quantifies a drug, the lower limits identify the lower therapeutic bounds and the upper limits represent the upper therapeutic bounds above which toxic side effects are common.
Abnormal Flags	8	IS	5	CE	Indicates whether the result sent in OBX-5 is abnormal.
Identifier	8.1			RE	A Unified Code for Units of Measure (UCUM)
Text	8.2			CE	A description for the UCUM code sent in OBX-8.1.
Name of Coding System	8.3			CE	Identifies the type of code sent in OBX-8.1. Literal Value: "UCUM" (when OBX-8.1 and OBX-8.2 are populated).
Alternate Identifier	8.4			RE	An alternate code the laboratory uses that uniquely identifies the unit of measure.
Alternate Text	8.5			CE	A description for the local code sent in OBX-8.4.
Name of Alternate Coding System	8.6			CE	Identifies the type of code sent in OBX-8.4. Literal Value: "L" (when OBX-8.4 and OBX-8.5 are populated).
Coding System Version ID	8.7			RE	Version of the UCUM coding system used in OBX-8.7.
Alternate Coding System Version ID	8.8			RE	Version of the Laboratory's internal coding system used in OBX-8.4.
Observation Result Status	11	ID	1	0	This field contains the status of results for this order. Valid status codes are (excerpt of Table 0085): Value Description C Record coming over is a correction and thus replaces a final result D Deletes the OBX record F Final results; Can only be changed with a corrected result I Specimen in lab; results pending Not asked; used to affirmatively document that the observation identified in the OBX was not sought when the universal service ID in OBR-4 implies that it would be sought O Order detail description only (no result) P Preliminary results R Results entered - not verified S Partial results

					X Results cannot be obtained for this observation Results status change to Final without retransmitting results already sent as 'preliminary.' e.g., radiology changes status from preliminary to final W Post original as wrong
Date/Time of the Observation	14	TS	26	0	The clinically relevant time of the observation. For specimen-based laboratory reporting the specimen collection date and time. Format: YYYYMMDD[HHMM[SS]]
Observation Method	17	CE	250	RE	Method of testing by the laboratory. If the LOINC code in OBX-3 does not indicate the observation method, this field shall be populated.
Identifier	17.1	ST	20	RE	A code from the CDC value set: PHVS_LabTestMethods_CDC
Text	17.2	ST	199	CE	A description for the code sent in OBX-17.1
Name of Coding System	17.3	ID	20	CE	Identifies the type of code sent in OBX-17.1. Literal Value: "CDCREC" (when OBX-17.1 and OBX-17.2 are populated).
Alternate Identifier	17.4	ST	20	RE	An alternate code the laboratory uses that uniquely identifies the observation method.
Alternate Text	17.5	ST	199	CE	A description for the local code sent in OBX-17.4.
Name of Alternate Coding System	17.6	ID	20	CE	Identifies the type of code sent in OBX-17.4. Literal Value: "L" (when OBX-17.4 and OBX-17.5 are populated).
Coding System Version ID	17.7			RE	Version of the CDC value set coding system used in OBX-17.7.
Alternate Coding System Version ID	17.8			RE	Version of the Laboratory's internal coding system used in OBX-17.4.
Date/Time of the Analysis	19	TS	26	RE	Time at which the testing was performed. Format: YYYYMMDD[HHMM[SS]]
Performing Organization Name	23	XON	567	R	This field specifies the laboratory that produced the result described in this segment.
Organization Name	23.1	ST	50	CE	The name of the laboratory.
Organization Name Type	23.2	IS	20	RE	Use a valid type code. Valid name type codes are (excerpt of <u>Table 0204</u>): Value Description

		1	1		
					A Alias name D Display name
					L Legal name
Assigning Authority	23.6	HD	227	CE	Used to identify the system, application, or organization that assigned the ID in ORC-21.10
Assigning Authority Name	23.6.1	IS	20	RE	The name of the Assigning Authority. "CLIA" is expected
Assigning Authority ID	23.6.2	ST	199	R	The CLIA number or OID of the Assigning Authority. "1.3.6.1.4.1.27248.2.1273.1" is expected if the CLIA number is used.
Assigning Authority ID Type	23.6.3	ID	6	R	Expecting value "CLIA" if used a CLIA number or "ISO" if used an OID. "ISO" is expected.
Identifier Type Code	23.7	ID	Not Limited	CE	Literal Value: "XX" (when OBX-23.10 is populated).
Organization Identifier	23.10	ST	Not Limited	RE	The ordering facility identifier. The CLIA number is expected.
Performing Organization Address	24	XAD	106	R	The address of the lab that performed the test.
Street Address	24.1	ST	100	RE	The performing organization's street/mailing address.
Address Line 2	24.2	ST	100	RE	The performing organization's suite/unit number.
City	24.3	ST	50	RE	The performing organization's city.
State	24.4	ST	50	RE	The performing organization's state. Use a valid 2 character state code.
ZIP or Postal Code	24.5	ST	12	RE	The performing organization's zip code. Use a valid 5-digit zip code.
Address Type	24.7	ID	3	RE	Defines the type of address sent in OBX-24. Type code 'B' (Business) is recommended. If Ordering Facility Address is sent, this field is required.
County/Parish Code	24.9	IS	20	RE	The ordering facility's county. If the ordering facility's is in an independent city in Virginia, submit city name in this field as well as in OBX-24.3.
Performing Organization Medical Director	25	XCN	3002	RE	Name of the Medical Director of the reference laboratory.
ID number	25.1	ST	Not Limited	RE	The identifier number for this provider. The National Provider Identifier (NPI) is expected.
Last Name	25.2	FN	Not Limited	RE	The medical director's family/surname.
First Name	25.3	ST	Not	RE	The medical director's given name.

			Limited		
Middle Name/Initials	25.4	ST	Not Limited	RE	The medical director's middle name or initials thereof.
Suffix	25.5	ST	Not Limited	RE	The medical director's suffix.
Prefix	25.6	ST	Not Limited	RE	The medical director's prefix (e.g. DR).
Assigning Authority	25.9	HD	227	CE	The organization which assigned the ID number in OBX-25.1.
Assigning Authority Name	25.9.1	IS	20	RE	Literal Value: "CMS" (if NPI is used in OBX-25.1).
Assigning Authority ID	25.9.2	ST	199	R	Literal Value: "2.16.840.1.113883.19.4.6" (if NPI is used in OBX-25.1).
Assigning Authority ID Type	25.9.3	ID	6	R	Literal Value: "ISO" (if NPI is used in OBX-25.1).
Name Type Code	25.10	ID	Not Limited	RE	Defines the type of name sent in OBX-25. Literal Value: "L" (Legal Name) is recommended. Valid name type codes are (excerpt of Table 0200): Value Description C Adopted Name A Alias Name S Coded Pseudo-Name to ensure anonymity D Display Name T Indigenous/Tribal/Community Name L Legal Name I Licensing Name M Maiden Name B Name at Birth P Name of Partner/Spouse N Nickname R Registered Name U Unspecified
Identifier Type Code	25.13	IS	Not Limited	CE	Type code identifying the ID number in OBX-25.1. Literal Value: "NPI" (if NPI is used in OBX-25.1).
Assigning Facility	25.14	HD	227	RE	Component used to identify the place/location that the ID number was assigned for use. (Note that If an NPI is being used, there is no assigning facility and this field will be empty.)

Assigning Facility Nan	ne 25.14	1 IS		20	RE	The name of the Assigning Facility.
Assigning Facility ID	25.14	2 ST	Γ	199	R	The CLIA number or OID of the Assigning Facility.
Assigning Facility ID 1	ype 25.14	3 ID		6	R	Expecting value "CLIA" if used a CLIA number or "ISO" if used an OID.

SPECIMEN SEGMENT (SPM)					
Field Name	Seq	DT	Length	Use	Notes/Value Set
Set ID – SPM	1	SI	4	R	Literal Value: "1" for the first child SPM segment under an OBR. Increments by one for every subsequent SPM segment under the same parent OBR.
Specimen ID	2	EIP	80	R	A unique identifier for the specimen. (Specimen number may be the accession number.)
Filler Assigned Specimen ID	2.2	EI	427	R	A unique identifier for the specimen as assigned by the laboratory.
Specimen Identifier	2.2.1	ST	199	R	The identifier for the specimen. This should be unique within the laboratory. If specimen numbers are ever reused, a time- or date-stamp may need to be added to the end of the specimen number to guarantee uniqueness.
Assigning Facility Name	2.2.2	IS	20	RE	The name of the Assigning Facility.
Assigning Facility ID	2.2.3	ST	199	R	The CLIA number or OID of the Assigning Facility.
Assigning Facility ID Type	2.2.4	ID	6	R	Expecting value "CLIA" if used a CLIA number or "ISO" if used an OID.
Specimen Type	4	CWE	250	R	Description of the precise nature of the entity that is the source material for the observation.
Identifier	4.1	ST	20	RE	A code for the type of specimen. Use SNOMED CT Specimen codes or values from table 487. (See <u>Table 487</u> near the end of this document.)
Description	4.2	ST	199	CE	A description for the type of specimen.
Name of Coding System	4.3	ID	20	CE	Identifies the type of code sent in SPM-4.1. Expecting value "SCT" if a SNOMED CT specimen code is used or "'HL70487" if used a specimen type from HL7 table 487 is used.
Alternate Identifier	4.4	ST	20	RE	A Laboratory's internal code for the type of specimen
Alternate Text	4.5	ST	199	CE	A Laboratory's internal description for the type of specimen

Nome of					
Name of Alternate	4.6	ID	20	CE	Identifies the type of code sent in SPM-4.4. Literal Value: "L" (when SPM-4.4 and SPM-4.5
Coding System	4.0		20		are populated).
Coding System			4.0	-	
Version ID	4.7	ST	10	RE	Version of the coding system used in SPM-4.1.
Alternate					
Coding System Version ID	4.8	ST	10	RE	Version of the Laboratory's internal coding system used in SPM-4.4.
Specimen Type Modifier	5	CWE	250	RE	Field used with SPM-4 to further identify the type of specimen.
Identifier	5.1	ST	20	RE	A code for the specimen type modifier. Use values from the CDC value set PHVS_ModifierOrQualifier_CDC.
Description	5.2	ST	199	CE	A description for the specimen type modifier.
Name of Coding System	5.3	ID	20	CE	Identifies the type of code sent in SPM-5.1. Literal Value: "SCT" (when SPM-5.1 and SPM-5.2 are populated).
Alternate Identifier	5.4	ST	20	RE	A Laboratory's internal code for the specimen type modifier.
Alternate Text	5.5	ST	199	CE	A Laboratory's internal description for the specimen type modifier.
Coding System Version ID	5.7	ST	10	RE	Version of the coding system used in SPM-5.1.
Alternate Coding System Version ID	5.8	ST	10	RE	Version of the Laboratory's internal coding system used in SPM-5.4.
Specimen Additives	6	CWE	250	RE	Information regarding any substances added to the specimen before or at the time of specimen collection.
Identifier	6.1	ST	20	RE	A code for the specimen additive. Use values from table 371. (See <u>Table 371</u> near the end of this document.).
Description	6.2	ST	199	CE	A description for the type of specimen additive.
Name of Coding System	6.3	ID	20	CE	Identifies the type of code sent in SPM-6.1. Literal Value: "HL70371" (when SPM-6.1 and SPM-6.2 are populated).
Alternate Identifier	6.4	ST	20	RE	A Laboratory's internal code for the type of specimen additive.
Alternate Text	6.5	ST	199	CE	A Laboratory's internal description for the type of specimen additive.
Name of Alternate Coding System	6.6	ID	20	CE	Identifies the type of code sent in SPM-6.4. Literal Value: "L" (when SPM-6.4 and SPM-6.5 are populated).
Coding System	6.7	ST	10	RE	Version of the coding system used in SPM-6.1.

Version ID					
Alternate Coding System Version ID	6.8	ST	10	RE	Version of the Laboratory's internal coding system used in SPM-6.4.
Specimen Collection Method	7	CWE	250	RE	Method used to collect the specimen.
Identifier	7.1	ST	20	RE	A code for the specimen collection method. Use SNOMED CT Specimen codes or values from table 488. (See <u>Table 488</u> near the end of this document.).
Description	7.2	ST	199	CE	A description for the type of specimen collection method.
Name of Coding System	7.3	ID	20	CE	Identifies the type of code sent in SPM-7.1. Expecting value "SCT" if a SNOMED CT specimen code is used or "'HL70488" if a specimen type from the HL7 table 488 is used.
Alternate Identifier	7.4	ST	20	RE	A Laboratory's internal code for the type of specimen collection method.
Alternate Text	7.5	ST	199	CE	A Laboratory's internal description for the type of specimen collection method.
Name of Alternate Coding System	7.6	ID	20	CE	Identifies the type of code sent in SPM-7.4. Literal Value: "L" (when SPM-7.4 and SPM-7.5 are populated).
Coding System Version ID	7.7	ST	10	RE	Version of the coding system used in SPM-7.1.
Alternate Coding System Version ID	7.8	ST	10	RE	Version of the Laboratory's internal coding system used in SPM-7.4.
Specimen Source Site	8	CWE	250	RE	Source from which the specimen was obtained. For biological samples it may represent the anatomical site from which the specimen was collected.
Identifier	8.1	ST	20	RE	A code for the type of specimen. Use values from CDC PHIN SNOMED CT Anatomical Structure hierarchy .
Description	8.2	ST	199	CE	A description for the specimen source site.
Name of Coding System	8.3	ID	20	CE	Identifies the type of code sent in SPM-8.1. Literal Value: "SCT" (when SPM-8.1 and SPM-8.2 are populated).
Alternate Identifier	8.4	ST	20	RE	A Laboratory's internal code for the type of specimen source site.
Alternate Text	8.5	ST	199	CE	A Laboratory's internal description for the type of specimen source site.
Name of Alternate Coding System	8.6	ID	20	CE	Identifies the type of code sent in SPM-8.4. Literal Value: "L" (when SPM-8.4 and SPM-8.5 are populated).
Coding System Version ID	8.7	ST	10	RE	Version of the coding system used in SPM-8.1.

A.I.	1	1	1	1	
Alternate Coding System Version ID	8.8	ST	10	RE	Version of the Laboratory's internal coding system used in SPM-8.4.
Specimen Source Site Modifier	9	CWE	250	RE	Modifier or qualifier for the specimen source site (SPM-8).
Identifier	9.1	ST	20	RE	A code for the type of specimen source site modifier. Use values from the CDC value set PHVS ModifierOrQualifier CDC.
Description	9.2	ST	199	CE	A description for the type of specimen source site modifier.
Name of Coding System	9.3	ID	20	CE	Identifies the type of code sent in SPM-9.1. Literal Value: "SCT" (when SPM-9.1 and SPM-9.2 are populated).
Alternate Identifier	9.4	ST	20	RE	A Laboratory's internal code for the type of specimen source site modifier.
Alternate Text	9.5	ST	199	CE	A Laboratory's internal description for the type of specimen source site modifier.
Name of Alternate Coding System	9.6	ID	20	CE	Identifies the type of code sent in SPM-9.4. Literal Value: "L" (when SPM-9.4 and SPM-9.5 are populated).
Coding System Version ID	9.7	ST	10	RE	Version of the coding system used in SPM-9.1.
Alternate Coding System Version ID	9.8	ST	10	RE	Version of the Laboratory's internal coding system used in SPM-9.4.
Specimen Collection Site	10	CWE	250	О	Approach site used to collect the specimen. For example, when collecting a specimen from an internal organ in the body, this field documents the location on the exterior of the body from which the specimen source site is approached.
Identifier	10.1	ST	20	RE	A code for the specimen collection site. Use values from CDC PHIN SNOMED CT Anatomical Structure hierarchy.
Description	10.2	ST	199	CE	A description for the specimen collection site.
Name of Coding System	10.3	ID	20	CE	Identifies the type of code sent in SPM-10.1. Literal Value: "SCT" (when SPM-10.1 and SPM-10.2 are populated).
Alternate Identifier	10.4	ST	20	RE	A Laboratory's internal code for the type of specimen collection site.
Alternate Text	10.5	ST	199	CE	A Laboratory's internal description for the type of specimen collection site.
Name of Alternate Coding System	10.6	ID	20	CE	Identifies the type of code sent in SPM-10.4. Literal Value: "L" (when SPM-10.4 and SPM-10.5 are populated).
Coding System Version ID	10.7	ST	10	RE	Version of the coding system used in SPM-10.1.

Alternate Coding System Version ID	10.8	ST	10	RE	Version of the Laboratory's internal coding system used in SPM-10.4.
Specimen Collection Amount	12	CQ	20	RE	Amount of sample collected. This can be reported as a volume or a weight/mass.
Quantity	12.1	NM	16	R	The quantity of the specimen collected.
Units	12.2	CE	183	RE	Units of measure.
Specimen Description	14	ST	250	0	Additional information specifically about the specimen.
Specimen Collection Date/Time	17	DR	26	R	Time range over which the sample was collected.
Range Start Date/Time	17.1	TS	26	RE	The time when specimen collection started. This value should match OBR-7 (Observation Date/Time).
24.6/11110					Format: YYYYMMDD[HHMM[SS]]
Range End Date/Time	17.2	TS	26	RE	The time when specimen collection stopped. This value should match OBR-8 (Observation End Date/Time).
Date/Tille					Format: YYYYMMDD[HHMM[SS]]
Specimen Received 1 Date/Time	40	TS	26		Time the specimen is received at the diagnostic service.
	18			R	Format: YYYYMMDD[HHMM[SS]]

Tables

The tables below are provided to show all possible field values and value types that can be sent in a HL7 Message. Not all possible fields are suitable for ELR reporting, and therefore only non-italicized fields will be accepted. The title of each table provides some guidance regarding segments and fields where these values should be used in the ELR message.

Table 0001 - Sex (PID-8)

Value	Description
F	Female
M	Male
Н	Hermaphrodite, Undetermined
T	Transsexual
0	Other
U	Unknown

Table 0002 - Marital Status (PID-16)

Value	Description
Α	Separated
D	Divorced
М	Married
S	Single
W	Widowed

Table 0005 - Race (PID-10)

· abio	1400 (112 10)			
Value	Description			
ı	American Indian or Alaska Native			
Α	Asian			
Р	Native Hawaiian or Other Pacific Islander			
В	Black or African-American			
W	White			
Н	Hispanic or Latino			
0	Other			
U	Unknown			

Table 0085 - Observation result status codes interpretation (OBX-11, SPM-11, etc.)

Description
Record coming over is a correction and thus
replaces a final result
Deletes the OBX record
Final results; Can only be changed with a
corrected result
Specimen in lab; results pending
Not asked; used to affirmatively document
that the observation identified in the OBX was
not sought when the universal service ID in
OBR-4 implies that it would be sought
Order detail description only (no result)
Preliminary results
Results entered - not verified
Partial results
Results cannot be obtained for this
observation
Results status change to Final without re-
transmitting results already sent as
'preliminary.' e.g., radiology changes status
from preliminary to final
Post original as wrong

Table 0123 – Result Status (OBR-25)

Value	Description
Α	Some, but not all, results available
С	Correction to results

F	Final results; results stored and verified. Can only be changed with a corrected result.
I	No results available; specimen received, procedure incomplete
0	Order received; specimen not yet received
Р	Preliminary: A verified early result is available, final results not yet obtained
R	Results stored; not yet verified
S	No results available; procedure scheduled, but not done
Χ	No results available; Order canceled.
Υ	No order on record for this test. (Used only on queries)
Z	No record of this patient. (Used only on queries)

Table 0125 - Value Type (OBX-2)

Value	Description
AD	Address
CE	Coded Entry
CF	Coded Element With Formatted Values
CK	Composite ID With Check Digit
CN	Composite ID And Name
CP	Composite Price
CWE	Coded with Exceptions
CX	Extended Composite ID With Check Digit
DT	Date
ED	Encapsulated Data
FT	Formatted Text (Display)
MO	Money
NM	Numeric
PN	Person Name
RP	Reference Pointer
SN	Structured Numeric
ST	String Data
TM	Time
TN	Telephone Number
TS	Time Stamp (Date & Time)
TX	Text Data (Display)
XAD	Extended Address
XCN	Extended Composite Name And Number For

	Persons
XON	Extended Composite Name And Number For Organizations
XPN	Extended Person Name
XTN	Extended Telecommunications Number

Table 0155 - Acknowledgement Type (MSH-15 and MSH-16)

Value	Description
AL	Always
NE	Never
ER	Error/reject conditions only
SU	Successful completion only

Table 0189 - Ethnic Group (PID-22)

Value	Description
Н	Hispanic or Latino
N	Not Hispanic or Latino
U	Unknown

Table 0190 - Address type (PID-11, ORC-22, etc. - use in XAD data types)

	77 12 data typoo,	
Value	Description	
В	Firm/Business	
BA	Bad address	
BLD	Birth delivery location [use for birth facility]	
BR	Residence at birth [use for residence at birth]	
С	Current or Temporary	
F	Country of Origin	
Н	Home	
L	Legal Address	
M	Mailing	
N	Birth (nee)	
0	Office	
Р	Permanent	
RH	Registry home	

Table 0200 - Name type (PID-5, OBR-16, etc. - use in XCN and XPN data types)

Value	Description	
С	Adopted Name	
Α	Alias Name	
S	Coded Pseudo-Name to ensure	
3	anonymity	
D	Display Name	
Т	Indigenous/Tribal/Community Name	
L	Legal Name	
I	Licensing Name	
M	Maiden Name	
В	Name at Birth	
Р	Name of Partner/Spouse	
N	Nickname	
R	Registered Name	
U	Unspecified	

Table 0201 – Telecommunication use code (PID-13, PID-14, etc. - use in XTN data types)

,	
Value	Description
ASN	Answering Service Number
BPN	Beeper Number
EMR	Emergency Number
NET	Network (email) Address
ORN	Other Residence Number
PRN	Primary Residence Number
VHN	Vacation Home Number
WPN	Work Number

Table 0202 – Telecommunication equipment type (PID-13, PID-14, etc. use in XTN data types)

1 1D 17, C	i ib-14, etc. use ili XIII data types <i>j</i>		
Value	Description		
BP	Beeper		
CP	Cellular Phone		
FX	Fax		
Internet	Internet Address: Use Only If		
	Telecommunication Use Code Is NET		
MD	Modem		
PH	Telephone		
TDD	Telecommunications Device for the Deaf		
TTY	Teletypewriter		
X.400	X.400 email address: Use Only If Telecommunication Use Code Is NET		

Table 0203 - Identifier Type Code (PID-3)

ubic oz	oo lachimer type oode (t ib o)
Value	Description
AM	American Express
AN	Account Number
BR	Birth Registry Number
DI	Diner's Club Card
DL	Driver's License Number
DN	Doctor Number
DS	Discover Card
El	Employee Number
EN	Employer Number
GI	Guarantor Internal Identifier
GN	Guarantor External Identifier
MS	MasterCard
MA	Medicaid Number
MC	Medicare Number
MR	Medical Record Number
PI	Patient Internal Identifier
PN	Person Number
PT	Patient External Identifier
RR	Railroad Retirement Number
SS	Social Security Number
UPIN	Medicare/HCFA's Universal
GN MS MA MC MR PI PN PT RR SS	Guarantor External Identifier MasterCard Medicaid Number Medicare Number Medical Record Number Patient Internal Identifier Person Number Patient External Identifier Railroad Retirement Number Social Security Number

Table 0204 – Organizational Name Type (ORC-21, OBX-23, etc. - use in XON data types)

	ordinate in Article did typed,		
Value	Description		
Α	Alias name		
D	Display name		
L	Legal name		
SL	Stock exchange listing name		

Table 371 – Specimen Additives (SPM-6)

Value	Description
F10	10% Formalin
C32	3.2% Citrate
C38	3.8% Citrate
HCL6	6N HCL 24 HR
ACDA	ACD Solution A
ACDB	ACD Solution B

ACET	Acetic Acid	
AMIES	Amies transport medium	
HEPA	Ammonium heparin	
BACTM	Bacterial Transport medium	
BOR	Borate Boric Acid	
BOUIN	Bouin's solution	
BF10	Buffered 10% formalin	
	Buffered Citrate (Westergren Sedimentation	
WEST	Rate)	
BSKM	Buffered skim milk	
CARS	Carson's Modified 10% formalin	
CARY	Cary Blair Medium	
CHLTM	Chlamydia transport medium	
CTAD	CTAD (this should be spelled out if not	
CIAD	universally understood)	
ENT	Enteric bacteria transport medium	
ENT+	Enteric plus	
JKM	Jones Kendrick Medium	
KARN	Karnovsky's fixative	
LIA	Lithium iodoacetate	
HEPL	Lithium/Li Heparin	
M4	M4	
M4RT	M4-RT	
M5	M5	
MICHTM	Michel's transport medium	
MMDTM	MMD transport medium	
HNO3	Nitric Acid Urine	
NONE	None	
PAGE	Pages's Saline	
PHENOL	Phenol 24 Hr	
KOX	Potassium Oxalate	
EDTK15	Potassium/K EDTA 1.5%	
EDTK75	Potassium/K EDTA 7.5%	
PVA	PVA (polyvinylalcohol)	
RLM	Reagan Lowe Medium	
SST	Serum Separator Tube (Polymer Gel)	
SILICA	Siliceous earth, 12 mg	
NAF	Sodium Fluoride	
FL100	Sodium Fluoride, 100mg	
FL10	Sodium Fluoride, 10mg	
NAPS	Sodium polyanethol sulfonate 0.35% in	
	0.85% sodium chloride	
HEPN	Sodium/Na Heparin	

EDTN Sodium/Na EDTA	
SPS(this should be spelled out if not	
universally understood)	
M Stuart transport medium	
Thrombin	
Thrombin NIH; soybean trypsin inhibitor	
(Fibrin Degradation Products)	
Thymol	
Thyoglycollate broth	
Toluene	
Ureaplasma transport medium	
Viral Transport medium	

Table 487 - Specimen Type (SPM-4)

ABS	Abscess
ACNE	Tissue, Acne
ACNFLD	Fluid, Acne
AIRS	Air Sample
ALL	Allograft
AMP	Amputation
ANGI	Catheter Tip, Angio
ARTC	Catheter Tip, Arterial
ASERU	Serum, Acute
ASP	Aspirate
ATTE	Environmental, Autoclave Ampule
AUTOC	Environment, Attest
AUTOC	Environmental, Autoclave Capsule
AUTP	Autopsy
BBL	Blood bag
BCYST	Cyst, Baker's
BITE	Bite
BLEB	Bleb
BLIST	Blister
BOIL	Boil
BON	Bone
BOWL	Bowel contents
BPU	Blood product unit
BRN	Burn
BRSH	Brush
BRTH	Breath (use EXHLD)
BRUS	Brushing
BUB	Bubo

BULLA	Bulla/Bullae
BX	Biopsy
CALC	Calculus (=Stone)
CARBU	Carbuncle
CAT	Catheter
CBITE	Bite, Cat
CLIPP	Clippings
CNJT	Conjunctiva
COL	Colostrum
CONE	Biospy, Cone
CSCR	Scratch, Cat
CSERU	Serum, Convalescent
CSITE	Catheter Insertion Site
CSMY	Fluid, Cystostomy Tube
CST	Fluid, Cyst
CSVR	Blood, Cell Saver
CTP	Catheter tip
CVPS	Site, CVP
CVPT	Catheter Tip, CVP
CYN	Nodule, Cystic
CYST	Cyst
DBITE	Bite, Dog
DCS	Sputum, Deep Cough
DEC	Ulcer, Decubitus
DEION	Environmental, Water (Deionized)
DIA	Dialysate
DISCHG	Discharge
DIV	Diverticulum
DRN	Drain
DRNG	Drainage, Tube
DRNGP	Drainage, Penrose
EARW	Ear wax (cerumen)
EBRUSH	Brush, Esophageal
EEYE	Environmental, Eye Wash
EFF	Environmental, Effluent
EFFUS	Effusion
EFOD	Environmental, Food
EISO	Environmental, Isolette
ELT	Electrode
ENVIR	Environmental, Unidentified
EINVIR	Substance
EOTH	Environmental, Other Substance
ESOI	Environmental, Soil

ESOS	Environmental, Solution (Sterile)
ETA	Aspirate, Endotrach
ETTP	Catheter Tip, Endotracheal
ETTUB	Tube, Endotracheal
EWHI	Environmental, Whirlpool
EXG	Gas, exhaled (=breath)
EXS	Shunt, External
EXUDTE	Exudate
FAW	Environmental, Water (Well)
FBLOOD	Blood, Fetal
FGA	Fluid, Abdomen
FIST	Fistula
FLD	Fluid, Other
FLT	Filter
FLU	Fluid, Body unsp
FLUID	Fluid
FOLEY	Catheter Tip, Foley
FRS	Fluid, Respiratory
FSCLP	Scalp, Fetal
FUR	Furuncle
GAS	Gas
GASA	Aspirate, Gastric
GASAN	Antrum, Gastric
GASBR	Brushing, Gastric
GASD	Drainage, Gastric
GAST	Fluid/contents, Gastric
GENV	Genital vaginal
GRAFT	Graft
GRAFT	Graft Site
GRANU	Granuloma
GROSH	Catheter, Groshong
GSOL	Solution, Gastrostomy
GSPEC	Biopsy, Gastric
GT	Tube, Gastric
GTUBE	Drainage Tube, Drainage
GIUBE	(Gastrostomy)
HBITE	Bite, Human
HBLUD	Blood, Autopsy
HEMAQ	Catheter Tip, Hemaquit
HEMO	Catheter Tip, Hemovac
HERNI	Tissue, Herniated
HEV	Drain, Hemovac
HIC	Catheter, Hickman

HYDC	Fluid, Hydrocele
IBITE	Bite, Insect
ICYST	Cyst, Inclusion
IDC	Catheter Tip, Indwelling
IHG	Gas, Inhaled
ILEO	Drainage, Ileostomy
ILLEG	Source of Specimen Is Illegible
IMP	Implant
INCI	Site, Incision/Surgical
INFIL	Infiltrate
INS	Insect
INTRD	Catheter Tip, Introducer
IT	Intubation tube
IUD	Intrauterine Device
IVCAT	Catheter Tip, IV
IVFLD	Fluid, IV
IVTIP	Tubing Tip, IV
JEJU	Drainage, Jejunal
JNTFLD	Fluid, Joint
JP	Drainage, Jackson Pratt
KELOI	Lavage
KIDFLD	Fluid, Kidney
LAVG	Lavage, Bronhial
LAVGG	Lavage, Gastric
LAVGP	Lavage, Peritoneal
LAVPG	Lavage, Pre-Bronch
LENS1	Contact Lens
LENS2	Contact Lens Case
LESN	Lesion
LIQ	Liquid, Unspecified
LIQO	Liquid, Other
LSAC	Fluid, Lumbar Sac
MAHUR	Catheter Tip, Makurkour
MASS	Mass
MBLD	Blood, Menstrual
MUCOS	Mucosa
MUCUS	Mucus
NASDR	Drainage, Nasal
NEDL	Needle
NEPH	Site, Nephrostomy
NGASP	Aspirate, Nasogastric
NGAST	Drainage, Nasogastric
NGS	Site, Naso/Gastric

NODUL	Nodule(s)
NSECR	Secretion, Nasal
ORH	Other
ORL	Lesion, Oral
OTH	Source, Other
PACEM	Pacemaker
PCFL	Fluid, Pericardial
PDSIT	Site, Peritoneal Dialysis
PDTS	Site, Peritoneal Dialysis Tunnel
PELVA	Abscess, Pelvic
PENIL	Lesion, Penile
PERIA	Abscess, Perianal
PILOC	Cyst, Pilonidal
PINS	Site, Pin
PIS	Site, Pacemaker Insetion
PLAN	Plant Material
PLAS	Plasma
PLB	Plasma bag
PLEVS	Serum, Peak Level
PND	Drainage, Penile
POL	Polyps
POPGS	Graft Site, Popliteal
POPLG	Graft, Popliteal
POPLV	Site, Popliteal Vein
PORTA	Catheter, Porta
PPP	Plasma, Platelet poor
PROST	Prosthetic Device
PRP	Plasma, Platelet rich
PSC	Pseudocyst
PUNCT	Wound, Puncture
PUS	Pus
PUSFR	Pustule
PUST	Pus
QC3	Quality Control
RANDU	Urine, Random
RBITE	Bite, Reptile
RECT	Drainage, Rectal
RECTA	Abscess, Rectal
RENALC	Cyst, Renal
RENC	Fluid, Renal Cyst
RES	Respiratory
SAL	Saliva
SCAR	Tissue, Keloid (Scar)

SCLV	Catheter Tip, Subclavian
SCROA	Abscess, Scrotal
SECRE	Secretion(s)
SER	Serum
SHU	Site, Shunt
SHUNF	Fluid, Shunt
SHUNT	Shunt
SITE	Site
SKBP	Biopsy, Skin
SKN	Skin
SMM	Mass, Sub-Mandibular
SNV	Fluid, synovial (Joint fluid)
SPRM	Spermatozoa
SPRP	Catheter Tip, Suprapubic
SPRPB	Cathether Tip, Suprapubic
SPS	Environmental, Spore Strip
SPT	Sputum
SPTC	Sputum - coughed
SPTT	Sputum - tracheal aspirate
SPUT1	Sputum, Simulated
SPUTIN	Sputum, Inducted
SPUTSP	Sputum, Spontaneous
STER	Environmental, Sterrad
STL	Stool = Fecal
STONE	Stone, Kidney
SUBMA	Abscess, Submandibular
SUBMX	Abscess, Submaxillary
SUMP	Drainage, Sump
SUP	Suprapubic Tap
SUTUR	Suture
SWGZ	Catheter Tip, Swan Gantz
TASP	Aspirate, Tracheal
TISS	Tissue
TISU	Tissue ulcer
TLC	Cathether Tip, Triple Lumen
TRAC	Site, Tracheostomy
TRANS	Transudate
TSERU	Serum, Trough
TSTES	Abscess, Testicular
TTRA	Aspirate, Transtracheal
TUBES	Tubes
TUMOR	Tumor
TZANC	Smear, Tzanck

UDENT	Source, Unidentified
UR	Urine
URC	Urine clean catch
URINB	Urine, Bladder Washings
URINC	Urine, Catheterized
URINM	Urine, Midstream
URINN	Urine, Nephrostomy
URINP	Urine, Pedibag
URT	Urine catheter
USCOP	Urine, Cystoscopy
USPEC	Source, Unspecified
VASTIP	Catheter Tip, Vas
VENT	Catheter Tip, Ventricular
VITF	Vitreous Fluid
VOM	Vomitus
WASH	Wash
WASI	Washing, e.g. bronchial washing
WAT	Water
WB	Blood, Whole
WEN	Wen
WICK	Wick
WND	Wound
WNDA	Wound abscess
WNDD	Wound drainage
WNDE	Wound exudate
WORM	Worm
WRT	Wart
WWA	Environmental, Water
WWO	Environmental, Water (Ocean)
WWT	Environmental, Water (Tap)

Table 488 - Specimen Collection Method (SPM-7)

	, openien concensi menien (c. m.
ANP	Plates, Anaerobic
BAP	Plates, Blood Agar
BCAE	Blood Culture, Aerobic Bottle
BCAN	Blood Culture, Anaerobic Bottle
BCPD	Blood Culture, Pediatric Bottle
BIO	Biopsy
CAP	Capillary Specimen
CATH	Catheterized
CVP	Line, CVP
EPLA	Environmental, Plate

ESWA	Environmental, Swab
FNA	Aspiration, Fine Needle
KOFFP	Plate, Cough
LNA	Line, Arterial
LNV	Line, Venous
MARTL	Martin-Lewis Agar
ML11	Mod. Martin-Lewis Agar
MLP	Plate, Martin-Lewis
NYP	Plate, New York City
PACE	Pace, Gen-Probe
PIN	Pinworm Prep
PNA	Aterial puncture
PRIME	Pump Prime
PUMP	Pump Specimen
QC5	Quality Control For Micro
SCLP	Scalp, Fetal Vein
SCRAPS	Scrapings
SHA	Shaving
SWA	Swab
SWD	Swab, Dacron tipped
TMAN	Transport Media, Anaerobic
TMCH	Transport Media, Chalamydia
TMM4	Transport Media, M4
TMMY	Transport Media, Mycoplasma
TMOT	Transport Media,
TMP	Plate, Thayer-Martin
TMPV	Transport Media, PVA
TMSC	Transport Media, Stool Culture
TMUP	Transport Media, Ureaplasma
TMVI	Transport Media, Viral
VENIP	Venipuncture
WOOD	Swab, Wooden Shaft

Example Messages

MSH|^~\&|Lab1^1234^CLIA|^1234^CLIA|ELR^2.16.840.1.113883.19.3.2^ISO|SPH^2.16.840.1.113883.19. 3.2^ISO|20080818183002.1-0700||ORU^R01^ORU R01||1234567890||P^T||2.5.1|||NE||NE||USA||||USELR1.0^^2.16.840.1.114222.4.1 0.3^ISO SFT | 1 | Level Seven Healthcare Software, Inc.^L^^^&2.16.840.1.113883.19.4.6^ISO^XX^^^1234|1.2|An Lab system|56734||20080817 PID|1||36363636^^^MPI&2.16.840.1.113883.19.3.2.1&ISO^MR^A&2.16.840.1.113883.19.3.2.1&ISO~4443 33333^^^&2.16.840.1.113883.4.1^ISO^SS||Everyman^Adam^A^^^^L^^^^^BS|Mum^Martha^M^^^M|20 050602|M||2106-3^White^CDCREC^^^04/24/2007|2222 Home Street^^Ann Arbor^MI^99999^USA^H||^PRN^PH^^1^555^552004|^WPN^PH^^1^955^551009|eng^English^ISO6392^^ ^^3/29/2007|M^Married^HL70002^^^^2.5.1|||||N^Not Hispanic or Latino^HL70189^^^2.5.1||||||||||||200808151000-0700| Reliable^2.16.840.1.113883.19.3.1^ISO ORC|RE|23456^EHR^2.16.840.1.113883.19.3.2.3^ISO|9700123^Lab^2.16.840.1.113883.19.3.1.6^ISO||| |||||1234^Admit^Alan^A^III^Dr^^^&2.16.840.1.113883.19.4.6^ISO^L^^^EI^&2.16.840.1.113883. 19.4.6^ISO^^^^^MD||^WPN^PH^^1^555^551005||||||Level Seven Healthcare, Inc.^L^^^^&2.16.840.1.113883.19.4.6^ISO^XX^^^1234|1005 Healthcare Drive^^Ann Arbor^MI^99999^USA^B|^WPN^PH^^1^555^553001|4444 Healthcare Drive^Suite 123^Ann Arbor^MI^99999^USA^B OBR|1|23456^EHR^2.16.840.1.113883.19.3.2.3^ISO|9700123^Lab^2.16.840.1.113883.19.3.1.6^ISO|103 68-9^Lead BldC-mCnc^LN^3456543^Blood lead test^99USI^2.24|||200808151030-0700|||||diarrhea|||1234^Admit^Alan^A^III^Dr^^^&2.16.840.1.113883.19.4.6^ISO^L^^^EI^&2.1 6.840.1.113883.19.4.6^ISO^^^^^^MD|\WPN^PH^^1^555^551005|||||2008081830-0700|||F|||||787.91^DIARRHEA^I9CDX^^^07/09/2008|1235&Slide&Stan&S&&Dr&MD&&DOC&2.16.840. 1.113883.19.4.6&ISO OBX|1|NM|10368-9^Lead BldC-mCnc^LN^^^2.24||50|ug/dL^micro-gram per deciliter^UCUM^^^1.6|<10 ug/dL|H|||F|||200808151030-0700|||||200808181800-0700||||Lab^L^^^^CLIA&2.16.840.1.113883.19.4.6&ISO^XX^^^1236|3434 Industrial Loop^^Ann Arbor^MI^99999^USA^B|9876543^Slide^Stan^S^^^^NPPES&2.16.840.1.113883.19.4.6&ISO^L^^^NPI SPM|1|23456&EHR&2.16.840.1.113883.19.3.2.3&ISO^9700122&Lab&2.16.840.1.113883.19.3.1.6&ISO||12 2554006^Capillary blood specimen^SCT^BLDC^Blood

capillary^HL70070^20080131^2.5.1||HEPA^Ammonium heparin^HL70371^^^^2.5.1|CAP^Capillary

Specimen^HL70488^^^2.5.1|181395001^Venous structure of

- MSH|^~\&|Lab1^1234^CLIA|Reliable^1234^CLIA|ELR^2.16.840.1.113883.19.3.2.3^ISO|SPH^2.16.840.1. 113883.19.3.2^ISO|20070701132554- 0400||ORU^R01^ORU_R01|20070701132554000008|P^T|2.5.1|||NE|NE|USA||||USELR1.0^^2.16.840.1. 113883.19.9.7^ISO
- SFT|1|Level Seven Healthcare Software, Inc.^L^^^&2.16.840.1.113883.19.4.6^ISO^XX^^^1234|1.2|An Lab System|56734||20080817
- PID|1||36363636^^^MPI&2.16.840.1.113883.19.3.2.1&ISO^MR^A&2.16.840.1.113883.19.3.2.1&ISO~4443 33333^^^&2.16.840.1.113883.4.1^ISO^SS||Everyman^Adam^A^^^L^^^^BS|Mum^Martha^M^^^M|19 750602|M||2106-3^White^CDCREC^^^04/24/2007|2222 Home Street^^Ann Arbor^MI^99999^USA^H||^PRN^PH^^1^555^5552004|^WPN^PH^^1^955^5551009|eng^English^ISO6392^^ ^3/29/2007|M^Married^HL70002^^^2.5.1||||||N^Not Hispanic or Latino^HL70189^^^2.5.1|||||||N|||200808151000- 0700|Reliable^2.16.840.1.113883.19.3.1^ISO
- OBR|1|23456^EHR^2.16.840.1.113883.19.3.2.3^ISO|9700123^Lab^2.16.840.1.113883.19.3.1.6^ISO|625 -4^Bacteria identified^LN^3456543^ CULTURE, STOOL^99USI^2.26|||200808151030- 0700||||||diarrhea|||1234^Admit^Alan^A^III^Dr^^^&2.16.840.1.113883.19.4.6^ISO^L^^^EI^&2.1 6.840.1.113883.19.4.6^ISO^^^^^^^MD|^WPN^PH^^1^555^5551005||||2008081830- 0700|||P||||787.91^DIARRHEA^I9CDX^^^^07/09/2008|1235&Slide&Stan&S&&Dr&MD&&DOC&2.16.840. 1.113883.19.4.6&ISO
- OBX|1|CWE|625-4^Bacteria identified:Prid:Pt:Stool:Nom:Culture^LN^^^2.26|1|66543000^Campylobacter jejuni^SCT^^^January 2007|||||P||200808151030-0700||0086^Bacterial identification^OBSMETHOD^^^501-20080815||200808161030-0700|||Reliable Labs, Inc^L^^^CLIA&2.16.840.1.113883.19.4.6&ISO^XX^^1236|3434 Industrial Loop^^Ann Arbor^MI^99999^USA^B|9876543^Slide^Stan^S^^^^NPPES&2.16.840.1.113883.19.4.6&ISO^L^^^NPI

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OBX|2|SN|564-5^COLONY COUNT:NUM:PT:XXX:QN:VC^LN^^^2.26|1|^10000^-
    ^90000|1^^UCUM^^^1.6|||||P|||200808151030-0700||||200808161030-0700||||Reliable Labs,
    Inc^L^^^CLIA&2.16.840.1.113883.19.4.6&ISO^XX^^^1236|3434 Industrial Loop^^Ann
    Arbor^MI^99999^USA^B|9876543^Slide^Stan^S^^^^NPPES&2.16.840.1.113883.19.4.6&ISO^L^^^NPI
OBX|3|CWE|625-4^Bacteria
    identified:Prid:Pt:Stool:Nom:Culture^LN^^^2.26|2|302620005^Salmonella group B phase 1 a-
    e^SCT^^^^January 2007|||||P|||200808151030-0700|||0086^Bacterial
    identification OBSMETHOD ^ ^ ^ 501 - 20080815 | | 200808161030 - 0700 | | | | Reliable Labs,
    Inc^L^^^CLIA&2.16.840.1.113883.19.4.6&ISO^XX^^^1236|3434 Industrial Loop^^Ann
    Arbor^MI^99999^USA^B|9876543^Slide^Stan^S^^^^NPPES&2.16.840.1.113883.19.4.6&ISO^L^^^NPI
OBX | 4 | SN | 564-5^COLONY
    COUNT:NUM:PT:XXX:QN:VC^LN^^^^2.26|2|>^100000|1^^UCUM^^^^1.6||||P|||200808151030-
    0700||||200808161030-0700|||Reliable Labs,
    Inc^L^^^CLIA&2.16.840.1.113883.19.4.6&ISO^XX^^^1236|3434 Industrial Loop^^Ann
    Arbor^MI^99999^USA^B|9876543^Slide^Stan^S^^^^NPPES&2.16.840.1.113883.19.4.6&ISO^L^^^NPI
OBX|5|CWE|625-4^Bacteria
    identified:Prid:Pt:Stool:Nom:Culture^LN^^^^2.26|3|77352002^Shigella^SCT^^^^January
    2007||||||||||||200808151030-0700|||0086^Bacterial identification^OBSMETHOD^^^^501-
    20080815||200808161030-0700||||Reliable Labs,
    Inc^L^^^CLIA&2.16.840.1.113883.19.4.6&ISO^XX^^^1236|3434 Industrial Loop^^Ann
    Arbor^MI^99999^USA^B|9876543^Slide^Stan^S^^^^NPPES&2.16.840.1.113883.19.4.6&ISO^L^^^NPI
OBX | 6 | SN | 564-5^COLONY
    COUNT: NUM: PT: XXX: QN: VC^LN^^^2.26|3|<^1000|1^^UCUM^^^1.6||||P|||200808151030-
    0700||||200808161030-0700|||Reliable Labs,
    Inc^L^^^^CLIA&2.16.840.1.113883.19.4.6&ISO^XX^^^1236|3434 Industrial Loop^^Ann
    Arbor^MI^99999^USA^B|9876543^Slide^Stan^S^^^^NPPES&2.16.840.1.113883.19.4.6&ISO^L^^^NPI
SPM|1|23456&EHR&2.16.840.1.113883.19.3.2.3&ISO^9700122&Lab&2.16.840.1.113883.19.3.1.6&ISO||11
    9339001<sup>^</sup>Stool
    specimen^SCT^^^20080131||||||P^Patient^HL60369^^^2.5.1|10^q&qram&UCUM&&&&1.6||||20080
    8151030-0700|200808151100-0700
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